Bayer

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December 02, 2002

Dockets Management Branch (HFA-305)
Food and Drug Administration
5630 Fishers Lane, Room 1061
Rockville, MD 20852

Re: Docket No. 00D-1539, Draft Guidance for Industry: 21 CFR Part 11; Electronic Records; Electronic Signatures, Maintenance of Electronic Records

Bayer appreciates the opportunity to provide comments on the Draft Guidance for Industry: 21 CFR Part 11; Electronic Records; Electronic Signatures, Maintenance of Electronic Records. As a manufacturer of pharmaceuticals, biologicals, medical devices, animal health products, and consumer care products, 21 CFR Part 11 Electronic Records and Electronic Signatures has a significant impact on the Bayer organization. The comments included as an attachment to this letter represent the current thinking of subject matter experts within Bayer.

In general, the guidance document as written goes beyond the objective to provide guidance of the Part 11 rule. In some aspects it prescribes a substantial expansion of the scope of Part 11 functional requirements. This expansion does not increase data integrity, product quality or health safety. Maintenance requirements should not impose extraordinary burdens of time, money and technology on the healthcare industry.
We recommend revising the guidance document to reflect the original scope of the Part 11 rule.

If you have any questions regarding our comments, please contact me.

Sincerely,

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Attachment: Bayer Comments Guidance for Industry: 21 CFR Part 11; Electronic Records; Electronic Signatures, Maintenance of Electronic Records

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Page 2	2. Scope	Document states "...compatible with FDA's public health responsibilities". This requirement should be changed to "generally equivalent to paper records and handwritten signatures executed on paper."	There is no need to substitute new wording for the wording in the original rule. It does not confer clarity and introduces new areas of debate on interpretation.
Page 5	4.1 What does Part 11 require?	Document states "Accordingly, the signature manifestation information, associated with an electronic record that is subject to this requirement, must be maintained for the duration of the record retention period." The requirement should be changed to "Accordingly, the printed name of the signer, the date and time of signing and what the signature means, associated with an electronic record that is subject to this requirement, must be maintained for the duration of the record retention period."	It is helpful to specify what constitutes the "signature manifestation information" expected.
Page 6	4.1 What does Part 11 require?	Delete statement "authentic, and compatible with the FDA's public health responsibilities."	To our understanding the meaning of "authentic" is equivalent to "trustworthy". For a guideline the statement "compatible with FDA's public health responsibilities" does not elevate the understanding of Part 11 requirements.
Page 8	5.3 Continued Availability and Readability Of Electronic Record	Document states "You should periodically access a representative number of electronic records to ensure that record contents can	Access to a representative number of records to ensure readability is not recommended for the intended purpose. This might be an

	Information Should Be Ensured	still be read and evaluated throughout the records retention period." For the intention of this section a physical test of the readability of the entire media (e.g. surface scan) would be more appropriate.	appropriate approach after migration and/or transformation of records in order to verify or validate the migration/transformation.
Page 9	5.3 Continued Availability and Readability Of Electronic Record Information Should Be Ensured	At the end of the section 5.3 the following sentence should be added "For the purpose of long term retention, electronic records may be retained in a format that differs from the original."	It is important to recognize that de-facto database standards and 'Technology Neutral Formats' offer benefits for the long-term retention of required electronic records.
Pages 9-10	5.4 Electronic Records Should Be Stored Under Appropriate Environmental Conditions	Document states "You should determine what storage conditions are appropriate for the specific electronic media, and then maintain those conditions through the record retention period. You should monitor those conditions... ...such factors as temperature, humidity, dust, vibration, and sources of electromagnetic and radiofrequency interference." This requirement should be changed to "You should monitor critical conditions depending on the media. Critical conditions could be temperature, humidity, dust, vibration, and	Critical storage conditions are dependent on the type of storage media.

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		electromagnetic and radiofrequency interference."	
Page 10	5.5 The Ability To Process An Electronic Record's Information Throughout Its Records Retention Period Should Be Preserved	Document states "Throughout the records retention period, the ability to process information in an electronic record should not diminish." This requirement should be changed to "Throughout the records retention period, electronic record should be maintained in a manner that allows the electronic record's information to generate copies in human and computer readable form that are suitable for FDA inspection, review, and copying."	Part 11 requires only the ability to generate accurate and complete copies in both electronic and human readable form. Therefore maintaining process capability of the old system is substantial expansion of scope of Part 11 functional requirements that should go through the proper FDA rule making process rather than being introduced via guidance. This applies to the entire section 5.5.
Page 11	5.5 The Ability To Process An Electronic Record's Information Throughout Its Records Retention Period Should Be Preserved	Document states: "Accordingly, where you could use computer technologies to search, sort, or manipulate information in an original electronic record, you should be able to use computer technologies to perform the same kind of processing on information in the maintained electronic record." This requirement needs to be deleted.	Typically the accuracy and integrity of the record can be maintained, but the functionality and the features of the original applications generating the record are not possible to maintain under any realistic and cost effective archiving approach available today. Part 11 requires only the ability to generate accurate and complete copies in both electronic and human readable form. Therefore maintaining process capability of the old system is substantial expansion of

			scope of Part 11 functional requirements that should go through the proper FDA rule making process rather than being introduced via guidance.
Page 11	5.5 The Ability To Process An Electronic Record's Information Throughout Its Records Retention Period Should Be Preserved	Document states "For example, if you could automatically search for words in the text of an electronic record, sort or find values in a table, or perform calculations in a spreadsheet, you should be able to process information in a like manner for the electronic record over the entire records retention period. This ability (or functionality) derives largely from the hardware and software used to extract information from the electronic record, as well as the electronic record format itself. You should include this ability among your specifications in your procedures and controls." This requirement should be changed to "Throughout the records retention period, electronic record should be maintained in a manner that allows the electronic record's information to generate copies in human and computer readable form that are suitable for	Maintaining process capability of the old system is substantial expansion of scope of Part 11 functional requirements that should go through the proper FDA rule making process rather than being introduced via guidance. Acceptable alternatives are addressed in the predicate rules. For example in the GMPs section 211.180 (d) and the GLPs section 58.195 (g), the rule states "Records required by this part may be retained either as original records or as true copies such as photocopies, microfilm, microfiche, or other accurate reproductions of the original records." This clearly shows the intent to retain the information and does not require reprocessing." Requirement for reprocessing should be limited to those stated in a predicate rule and not be introduced through Part 11 guidance(s).

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		FDA inspection, review, and copying."	
Page 12	6.1 The Time Capsule Approach	Document states "Throughout the records retention period, you would keep the computer system functional and make no changes to the computing environment." This requirement should be changed to "Throughout the records retention period, you would keep the computer system functional. Changes could be necessary to keep system functionality."	The statement "no changes" is too restrictive. Some minor changes may be necessary for system maintenance without compromising the time capsule approach.
Page 14	6.2 The Electronic Records Migration Approach	Document states "However, you should carefully consider when it would be prudent to discard the old electronic records and/or system..." Concerns should be removed.	The statement implies that the old electronic system would still be maintained for some period of time after the electronic records were migrated to the new system. This requirement would negate the benefits of data migration. If properly validated, one should have assurance that the integrity of electronic records is preserved during and post migration.
Page 18	6.2.1.3 Electronic Record Integrity Attributes Should Be Preserved	Document states "Where a migration, in effect, creates a new electronic record ... the audit trail for the migrated electronic record would have to cover this creation." This requirement should be changed to "Where an electronic record is migrated ...	As audit trails are system- or vendor-specific it might be difficult or even impossible to add information to this original audit trail of a record when migrating the record to a new system. It should be acceptable to maintain separate documentation for maintenance, archiving or migration of the records beside

		appropriate documentation should be available."	the original audit trail. Such separate documentation could be an additional audit trail or validation documentation. Furthermore a copy of the data is not a human created (or modified) record. A copy of an electronic record does not create a "new" record if the information is the same.
Page 19	6.2.1.4 The Ability To Process Information In Electronic Records Should Be Preserved	Document states "In the migration approach, the new computer system should enable you to search, sort and process information in the migrated electronic record at least at the same level as what you could attain in the old system." This requirement needs to be deleted.	Refer to comments on section 5.5.
Page 20	6.2.1.5 Unavoidable Differences And Losses Should be Accounted For And Explained In The Migrated Electronic Record Or New System Documentation	Document states " Just prior to performing the electronic record migration a trusted third party from outside of the organization that has some responsibility for the electronic record verifies the digital signature using the old systems method." This requirement needs to be deleted.	The requirement of a third party involvement is a substantial expansion of scope of Part 11 functional requirements that should go through the proper FDA rule making process rather than being introduced via guidance. This applies to all trusted third party citations in this chapter.
Page 20	6.2.1.5 Unavoidable Differences And Losses Should be Accounted For	Document gives an example for migration of digital signed electronic records. This chapter needs to be revised.	For migration of digital signed electronic records it is necessary to have the complete and accurate information about the original

	And Explained In The Migrated Electronic Record Or New System Documentation		digital signing available after migration. If the migrated electronic record is kept in a closed system a digital signature is no longer required after migration. It must be clear that you are not migrating the signature itself, but rather migrating a representation of the fact of the signature.
Page 21	6.2.1.5 Unavoidable Differences And Losses Should be Accounted For And Explained In The Migrated Electronic Record Or New System Documentation	Document gives an example for migration of color codes and requires the creation of an electronic record to document this migration. This example should be extended as follows: "Besides an electronic record other documentation forms e.g. validation documentation should be adequate."	
Page 20	6.2.1.5 Unavoidable Differences And Losses Should be Accounted For And Explained In The Migrated Electronic Record Or New System Documentation	Insert after first sentence of the chapter ("...is preserved and presented."): "The fundamental objective of the migration is to preserve the essential meaning of the information as judged by experts in the field to be equivalent to the original in the context of its stated, actual or intended use."	Migration to new systems may result in changes in appearance as well as analytical result calculation precision from the original system. Recognizing this it is important that the essential meaning of the information not change and that only that information relevant to essential meaning need be migrated.